

CLAIMS

Claim 1

Claim 1 is rejected under 35 U.S.C. §102(b) as purportedly being anticipated by Yang (U.S. Patent 6,280,784). Claim 1, as amended, reads as follows:

1. A solid freeform fabrication system for producing a three-dimensional object, comprising:

a dispensing system including a radiation initiator and a build material, the radiation initiator and the build material being stored separately in the dispensing system, the radiation initiator and the build material being dispensed separately; and
a curing system operative to cure the radiation initiator and the build material after each have been dispensed, wherein the curing system comprises an ultraviolet curing system.

(Emphasis added).

The Applicants traverse the rejection of pending claim 1. Yang, fails to disclose, teach, or suggest “an ultraviolet curing system.” Applicants traverse the assertion in the Office Action that Yang discloses an ultraviolet curing system. Applicants can not find any reference to an ultraviolet curing system in reference to Yang’s invention. Yang’s “build material” is a food product, in contrast to a build material as described in the instant patent application and in particular in claim 12, as discussed further below. Yang only mentions the use of a hot air gun, which evaporates a volatile material, such as water, from the food product. The hot air gun mentioned in Yang is completely different than the ultra violet curing system described in the instant patent application and is not operative to cure the radiation initiator and build material. In particular, the background of Yang teaches against the use of an ultra violet energy source in food processing (Co. 2 lines 55-65). Thus, Yang teaches against the combination of the use of a food product and an ultra violet curing system.

In addition, Yang fails to disclose, teach, or suggest “a dispensing system including a radiation initiator and a build material...”. Applicants could not find a reference to a radiation initiator anywhere in the discussion of the invention in Yang. Applicants suggest that Yang would not use a radiation initiator because Yang’s invention involves food products as opposed to the build products as described in the instant patent application. Also, Yang does not discuss a way to activate the radiation initiator, so it is not likely Yang ever contemplated using a radiation initiator.

Therefore, Applicants submit that the rejection of claim 1 under 35 U.S.C. §102 should be withdrawn and claim 1 allowed because Yang does not teach the elements of claim 1 and actually teaches away from the combination of elements.

Further, Applicants traverse the rejection of pending dependent claims 2-14. Applicants respectfully submit that pending dependent claims 2-14 include every feature of claim 1. Thus, pending dependent claims 2-14 are allowable over the prior art of record. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Notwithstanding the reasons for allowance above, claims 2, 5, and 12 are allowable for additional reasons.

Claim 2 reads as follows:

2. The solid freeform fabrication system of claim 1, wherein ***the dispensing system includes at least one ink-jet printhead.***

(Emphasis added.)

Applicants traverse the assertion in the Office Action that Yang discloses the use of ink-jet print heads. In particular, the Office Action wrongly asserts that the injection nozzles (188A and 188B) would “read on” ink-jet print heads. One skilled in the art would not confuse an injection nozzle for food products with an ink-jet print head for dispensing a radiation initiator and a build material as described in the instant patent application. Yang does not discuss the use of ink jet print heads in reference to Yang’s invention, and only refers to extruders and the like. As such, Yang does not teach, disclose, or suggest the use ink jet print heads, and therefore the rejection of claim 2 should be withdrawn.

Claim 5 reads as follows:

5. The solid freeform fabrication system of claim 1, wherein ***the radiation initiator is an ultraviolet (UV) initiator.***

(Emphasis added).

Applicants traverse the assertion in the Office Action that Yang discloses an ultraviolet initiator. Applicants can not find any reference to an ultraviolet initiator in reference to Yang’s invention. Therefore the rejection of claim 5 should be withdrawn.

Claim 12 reads as follows:

12. The solid freeform fabrication system of claim 1, *wherein the build material is selected from acrylic compounds, compounds having one or more epoxy substituents, one or more vinyl ether substituents, vinylcaprolactam, vinylpyrrolidone, norbornenes, urethanes, and combinations thereof.*

(Emphasis added.)

Applicants traverse the assertion in the Office Action that Yang discloses a build material as shown above. Applicants can not find any reference to these build materials in Yang and in fact teaches away for use of such materials (Col. 2 lines 4-65). Therefore the rejection of claim 12 should be withdrawn.